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ABSTRACT

This study compared the affective attributes of a sample of beginning teacher education students in the 1990s with a sample of beginning teacher education students of the 1980's to investigate whether or not educational reform actions were accompanied by changes in the affective characteristics of individuals entering teacher preparation. The data obtained from the two samples of teacher education students (N=393) who were registered at a large midwestern teacher preparation institution suggested that the enhanced recruiting efforts of recent years have allowed teacher education institutions similar to the one on which this study was conducted to maintain teacher candidate quality as indicated by scholastic aptitude scores without detrimental changes in the affective attributes of prospective teachers. The 1990's candidates reported levels of attitude toward teaching as a career, of concerns about surviving as teachers, and of concerns about their impact upon pupils similar to the 1980's candidates. The 1990's candidates reported less anxiety about teaching, more confidence about becoming teachers, and more concern for the actual task of teaching than did the 1980's cohorts. (Contains 19 references.) (JB)

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Teacher Recruitment Effectiveness: A Comparative Study of the Affective Attributes of Teacher Candidates of the 1980's and the 1990's

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Abstract

The purpose of this study was to compare the affective attributes of a 1990's sample of beginning teacher candidates with a sample of beginning teacher candidates of the 1980's to investigate whether or not educational reform actions, such as increased recruiting efforts focused upon teacher candidates' scholastic aptitude, were accompanied with changes in the affective characteristics of individuals entering teacher preparation. The data obtained from the two samples of teacher candidates (N = 393) suggested that the enhanced recruiting efforts of recent years have allowed teacher institutions similar to the one on which this study was conducted to maintain teacher candidate quality as indicated by scholastic aptitude scores without detrimental changes in the affective attributes of prospective teachers. The 1990's candidates reported levels of attitude toward teaching as a career, of concerns about surviving as teachers, and of concerns about their impact upon pupils similar to the 1980's candidates; whereas the 1990's candidates reported less anxiety about teaching, more confidence about becoming teachers, and more concern for the actual task of teaching than did their 198o's cohorts.

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Teacher Recruitment Effectiveness: A Comparative Study of the Affective Attributes of Teacher Candidates of the 1980's and the 1990's

The accountability movements in the business and the educational communities during the past several years have increased the need for and the competition for talented individuals who will provide future leadership in our society. This increased competition for talented individuals is becoming a major factor influencing current efforts to increase or just to maintain teacher quality. Further contributing to the question of whether or not the teaching profession can be successful in attracting talented candidates under increasingly competitive conditions is the fact that in the past the teaching field has been less effective in attracting and retaining talented candidates than other professional fields (e.g., Chapman, 1983; Chapman & Hutcheson, 1982; Heyns, 1988; Marso & Pigge, 1991; Pigge & Marso, 1992). The teaching profession's competitive edge in attracting talent is additionally compromised because teaching is commonly perceived as being a less-than-ideal career (Bloland & Shelby, 1980) and because the continued reduction of gender barriers in our society is making females, like many secondary majors, more marketable in other professional fields (Weaver, 1983).

Many of the educational reform efforts accompanying the accountability movement, such as pupil and teacher competency testing and the attraction of capable individuals to teaching, have focused almost exclusively upon candidates' cognitive competencies. Educational theorists believe, however, and increasing amounts of research indicate, that affective attributes of teachers are important to teaching success and are related to both teachers' classroom behaviors and learner outcomes (e.g., Brookhart & Freeman, 1992; Greenwood, Olejnik & Proller, 1988; Kagan, 1992; Lawrence, 1979; Pajares, 1992; Parkay, Guyton & DeMoulin, 1989).

The purpose of this study was to compare the affective attributes of a 1990's sample of beginning teacher candidates with a second sample of beginning teacher candidates of the 1980's to investigate whether or not selected educational reform efforts in recent years, such as teacher candidate recruiting practices that were focused primarily upon scholastic aptitude, have been accompanied with perhaps negative changes in the affective characteristics of individuals entering teacher preparation. The basic premise of the study is that if it can be shown that the candidate pool of the 1990's possesses more desirable, or even similarly desirable affective and aptitude traits as those of the 1980's, then it would seem that teacher preparation institutions are being successful in competing with businesses and other professions in recruiting talented individuals to the profession. More specifically, the present study was designed to collect data related to the possible answer for following questions: Are the levels of 1990's teacher candidates' concerns about the task of teaching, concerns about their self-survival as teachers, and concerns about their probable positive impact upon their future pupils different from the levels of concerns reported by the teacher candidates of the 1980's? Do the 1990's teacher candidates differ from the 1980's candidates in the positiveness of their attitude toward teaching as a career? in their level of anxiety about teaching? in their confidence about becoming classroom teachers? or in their scholastic aptitude?

Methods and Procedures

The subjects (N = 393) consisted of all teacher education students registering for the required first teacher preparation class during the spring semester of 1985 (N = 154) and also during the spring semester of 1991 (N = 239) at a large midwestern teacher preparation institution. Statistical checks of the characteristics of the students were made which revealed that the two groups of candidates were comparable relative to such attributes as father's occupation and educational attainment, geographical location and size of graduating high schools, proportion being from families of educators, at the points in time they made their decisions to become teachers, the extent of their prior "teaching like" experiences, and the reasons they gave for selecting teaching as a career. Some differences were noted between the two groups of prospective teachers, but these differences were judged to be largely the influences of chance or evolving changes in societal demographics across the nation. For example, somewhat larger proportion of elementary to secondary majors was found in the 1990's sample, 55%

versus 41%, which could have been a result of increased competition for talent in several of the secondary fields; somewhat fewer males were found in the 1990's sample, 25% versus 41%, perhaps a result of the predominance of females in the elementary majors; more of the 1990's candidates came from somewhat smaller families, 75% with 2 or fewer siblings versus 54% for the 1980's group; and fewer mothers of candidates with no more than a high school education were found in the 1990's sample, 41% versus 51%.

The affective data gathered from these two samples of prospective teachers upon orientation to their required first education class consisted of scores derived from The Teacher Concerns Questionnaire (George, 1978), The Attitude Toward Teaching as a Career Scale (Merwin & DiVesta, 1959), The Teaching Anxiety Scale (Parsons, 1973), and a researcher-constructed measure of confidence about teaching. Additionally, the candidates' ACT scores (English, math, social studies, natural science, and composite) were obtained from their admission records.

The concerns instrument consists of 15 items with five items on each of the self, task, and impact scales. The response scale for each item is a continuum from not concerned '1' to extremely concerned '5'. George (1978) reported test-retest reliability coefficients in the 0.70's for the three scales and good construct validity evidence in the form of significant differences between preservice and inservice teachers' concerns for the self and task concerns but no differences for the impact scale. Rogan, Borich, and Taylor (1992) provided similar validity evidence for the concerns scales, but they also provided limited validation evidence for the impact scale. The attitude instrument contains 11 items each of which is answered on a response format ranging from strongly disagree '1' to strongly agree '6' with higher scores indicating a more positive attitude. Merwin and DiVesta (1959) reported a test-retest coefficient of reliability of 0.79 for this instrument and construct validity evidence in the form of a significant difference in attitude between students having and not having selected teaching as a career.

The anxiety measure consists of 29 items with a response continuum from never '1' to always '5' with higher scores indicating more anxiety about teaching. Parsons (1973) reported a test-retest coefficient of stability of 0.95 for this instrument and concurrent validity correlations of from .25 to .62 between this instrument and other anxiety scales and supervisors' ratings of the anxiety level of teacher interns. The researcher-constructed confidence about teaching measure consists of two scales. Anticipated effectiveness as future teachers is assessed by a single eight-point scale item with responses from not effective at all '0' to truly exceptional '7', and degree of assurance about becoming a teacher is assessed by a single five-point scale item with responses from very certain '1' to very doubtful '5'.

Two-way multivariate analysis of variance (MANOVA) procedures were used to determine whether there was a need to use two-way ANOVAs for analyzing the dependent variable scores derived from the two groups of beginning teacher candidates. The Wilk's lambda multivariate F related to testing overall year effect for the seven dependent variables were significant ($p < .001$) and the year main effect ANOVA results are presented in Table 1. The multivariate F related to testing mean differences among the three ACT classifications for the seven dependent variables approached $\alpha = .05$ significance ($p = .068$) and the ACT main effect ANOVA results are thus presented in Table 2. The ACT classifications were formed by selecting those candidates with composite scores of 18 or less, 19 to 23, and 24 or higher within the two candidate groups. Where appropriate, Scheffe pair-wise mean comparison tests ($\alpha = .10$) followed the significant($p \leq .05$) univariate F-ratios. The MANOVA F for the interaction effect of ACT classification and year for the seven dependent variables was not significant ($F = .061$, $p = .880$); thus no ANOVA interaction F's are presented in the paper.

Insert Tables 1 and 2 about here

Findings

The MANOVA completed on the set of affective scores for the two groups of candidates revealed an F value of 4.03, $p < .001$ (Wilk's lambda) for the overall year or group effect. The two-way univariate ANOVA F-ratios of the individual affective measure scores following the MANOVA revealed statistically significant main effect mean differences between the two groups of prospective teachers' task concerns, anxiety about teaching, and confidence about teaching score means as reported in Table 1. These differences indicated that the 1990's candidates as compared to their 1980's cohorts perceived themselves to be more effective future teachers with means of 5.42 and 5.10 respectively, were more assured about their decision to become teachers with means of 1.51 and 1.67 respectively, were less anxious about teaching with means of 67.99 and 77.31 respectively, and were more concerned about the actual task of teaching with means of 12.47 and 11.40 respectively. The mean differences between the two groups of candidates for the self and impact concerns scores and the attitude toward teaching as a career scores were not statistically significant.

As noted before, because the multivariate test for the overall effect of the ACT composite score classification/row approached statistical significance, Wilk's $F = 1.58$, $p = .068$, the univariate tests for this main effect were examined and reported in Table 2. These comparisons indicated that the teacher candidates with highest ACT scores, 24 or more, expressed less concern about their survival as teachers (self concerns) than did the two lower ACT groups of candidates, $F = 3.96$, $p = .019$ with means of 15.19, 16.57, and 16.74 respectively, and this highest ACT group also expressed less concern about the actual task of teaching (task concerns) than did the lowest scoring candidates (ACT of 18 or less), $F = 4.71$, $p = .009$ with means of 11.34 and 12.88 respectively. A similar mean pattern was revealed for the candidates' concern about their effect upon future pupils (impact concerns), but this difference just approached significance, $F = 2.78$, $p = .064$. No comparisons related to the three ACT classifications revealed statistically significant mean differences on the other affective measures (attitude, anxiety, and confidence about teaching).

The MANOVA completed on the set of ACT scores when used as dependent variables for the two groups of candidates resulted in a statistically nonsignificant $F = 0.79$, $p = .668$. As these comparisons relate directly to the basic question of the academic quality of present and previous teacher candidates addressed in the present study, the five ACT score means (English, math, social studies, natural science, and composite) for the two groups of prospective teachers with associated univariate F values are reported in Table 3. A visual examination of the five sets of ACT score means for the 1980's and 1990's candidates reveals that they are almost identical in magnitude.

Insert Table 3 about here

Summary and Conclusion

The affective attributes of teacher candidates beginning their required, first course in teacher preparation during the spring term of 1991 at a large midwestern teacher preparation institution were compared with those of teacher candidates beginning their teacher preparation at this same institution but in 1985. These two groups of candidates ($N = 393$) were found to be otherwise comparable on a number of demographic attributes such as reasons for deciding to become teachers, regional location and size of graduating high school, and parental characteristics. The affective characteristics of these two groups of prospective teachers were assessed by measures of concerns about teaching, attitude toward teaching as a career, anxiety about teaching, and confidence about becoming a teacher. Additionally, the ACT scores of the candidates were collected from the institutional admissions records for both groups.

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Multivariate and univariate analyses were completed using the ACT and affective measures as dependent variables to test the hypothesis of no overall group mean differences between the two groups of candidates. These procedures revealed no statistically significant differences between the ACT mean scores of the two groups, but statistically significant mean differences were identified between the two groups of prospective teachers in the levels of their concerns about the task of teaching, the degree of their anxiety about teaching, and the extent of their confidence about deciding to become teachers. These differences indicated that the 1990's candidates were more confident about their decision to become teachers and less anxious about teaching, but they were more concerned about the actual task of teaching than were their 1980's cohorts.

In brief, the data gathered from the two groups of prospective teachers related to the specific questions posed for the study indicate that the 1990's teacher candidates, as compared to their 1980's cohorts, have similar levels of self survival (self) and teacher effect upon pupil (impact) concerns, but they have higher levels of concern about the actual task of teaching. The more recent candidates were found to have similar highly positive attitudes toward teaching as a career as compared to the earlier group, but they expressed more confidence about their decision to teach and reported lower levels of anxiety about teaching. Also, the two groups of prospective teachers were found to have almost identical levels of scholastic aptitude as measured by the ACT.

The underlying premise of the present study was that if what is happening relative to success in recruiting talented individuals to the teaching profession at this large teacher preparation institution is indicative of what is happening at other similar colleges and universities, then evidence of the comparability of the candidate pool of the 1990's to the candidate pool of the 1980's would suggest that teacher preparation institutions are being successful in competing with businesses and other professions in recruiting talented individuals to the teaching profession. More explicitly. the evidence gathered in this study suggested that teacher preparation recruiting efforts are being successful, at least in terms of maintaining quality levels, despite increased competition for talented individuals and even though recent university recruiting efforts have predominantly focused upon attracting candidates earning high ACT/SAT scores. The 1990's candidates were found to be as academically capable as their cohorts of the 1980's, and their affective attributes were found to be comparable to or more desirable than those of their earlier cohorts. The 1990's candidates' characteristics of more confidence about the decision to teach, lower levels of anxiety about teaching, and higher levels of concern about the actual task of teaching compared to their 1980's cohorts are considered theoretically desirable affective attributes.

The Fuller (Fuller & Bown, 1975) concerns model predicts increases in prospective teachers' task concerns during early teacher development as their awareness of the complex task of teaching grows. Further, other research has revealed gains in novice teachers' task concerns during preservice education and early inservice teaching (Marso & Pigge, 1989; Pigge & Marso, 1990). Therefore, one might conclude that high levels of teacher candidates' concern about the complex task of teaching prior to their development of instructional skills is theoretically desirable. And, of course, higher levels of confidence about teaching and lower levels of anxiety about teaching are considered beneficial to teacher candidates. Less positively, the present findings also suggest that despite increased recent efforts to attract higher scoring ACT candidates, teacher preparation institutions may have succeeded just in maintaining prior, but somewhat lower, levels of ACT scores relative to many other professional fields (e.g., prior research suggests that education has not competed favorably with other professions for academically capable candidates [Chapman, 1983]). In other words, the increased recruiting efforts of teacher preparation institutions may be doing no better than just allowing the profession to maintain prior somewhat academically low candidate quality during the current period of keen competition for talented students.

In summary, and to the extent that these findings from a single institution may be generalized to other similar institutions, the data from the present study suggests that recent educational reform efforts to attract high school graduates with higher ACT/SAT scores have not detrimentally affected

the desirable affective attributes of teacher education candidates. In fact, these data suggest that the more recent candidates possess somewhat more positive affective attributes than previous candidates. It may be premature, as this data was gathered over but a six-year period of time, to judge the impact of educational reforms at this date. But on the other hand, the task of recruiting talented candidates to teaching in today's increasingly competitive market for talented candidates is imperative to the profession; therefore making it essential that almost continuous monitoring of the success of these efforts be conducted and the results of such efforts be shared.

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Table 1. MANOVA and Univariate ANOVAs of the Affective Measures for the Two Groups of Beginning Teacher Candidates

Measures	1980's Candidates M (N = 154)	1990's Candidates M (N = 239)	Univariate F Value*	p
Teaching Concerns				
Self	16.01	16.38	1.15	.285
Impact	18.71	18.62	0.03	.855
Task	11.40	12.47	9.77	.001
Attitude Teaching	51.86	51.92	0.00	.961
Anxiety Teaching	77.31	67.99	7.29	.008
Confidence Teaching				
Effectiveness	5.10	5.42	9.40	.002
Assurance**	1.67	1.51	3.94	.048

* Main effect ANOVA F's for tests of mean differences between the two groups. The multivariate F (Wilk's lambda) test for no overall year effect for this set of seven affective measures scores was 4.03, $p < .001$.

** Lower assurance values indicate more confidence about the prospective teachers' decision to teach.

Table 2. MANOVA and Univariate ANOVAs by Composite ACT Level for the Affective Measures of the Beginning Teacher Candidates

Measures	ACT Classification Levels (1) 18 or less	(2) 19 to 23	(3) 24 or more	Univariate F value*	p
Teaching Concerns					
Self	16.74 A**	16.57 A	15.19 B	3.96	.019
Impact	19.56 A	18.58 A,B	17.97 B	2.78	.064
Task	12.88 A	12.04 A,B	11.34 B	4.71	.009
Attitude Teaching	51.51 A	52.12 A	51.86 A	0.24	.785
Anxiety Teaching	68.56 A	70.07 A	68.56 A	1.15	.319
Confidence Teaching					
Effectiveness	5.33 A	5.24 A	5.36 A	0.88	.414
Assurance***	1.58 A	1.55 A	1.60 A	0.09	.914

* The multivariate F (Wilk's lambda) test for no overall ACT score level effect among the set of affective measures was 1.58, p = .068.

** Unique letters indicate significant mean differences, similar letters indicate nonsignificant mean differences, Scheffe $p \leq .10$.

*** Lower assurance values indicate more confidence about the prospective teachers' decision to teach.

Table 3. MANOVA and Univariate ANOVAs of the ACT Scores for the Two Groups of Beginning Teacher Candidates

ACT Tests	1980's Candidates M	1990's Candidates M	Univariate F Value*	p
English	20.64	20.78	0.27	.923
Math	19.55	19.56	0.90	.745
Social Studies	19.77	19.86	0.02	.875
Natural Science	23.00	22.82	0.11	.741
Composite Score	20.89	20.95	0.08	.777

* The multivariate F (Wilk's lambda) ratio for no overall year or group effect for these ACT variables was 0.79, p = .668, indicating that the two groups did not differ with respect to these five sets of mean scores.

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